

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/13553

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 C08F4/64 C07F17/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C08F C07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BEILSTEIN Data, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 743 317 A (HOECHST AG) 20 November 1996 (1996-11-20) Claims 2,6-7; formulae (II) and (G); p. 7, l. 18; p. 8, l. 56; Scheme on p. 11-12	1-9
X	WO 02/18397 A (SCHULTE JOERG ;BINGEL CARSTEN (DE); SCHOTTEK JOERG (DE); BASELL PO) 7 March 2002 (2002-03-07) cited in the application Claims 1-6; formulae (I) and (VI); p. 16, l. 3-p. 29, l. 33; examples 1-3,6-8	1-9
X	WO 98/40419 A (FISCHER DAVID ;GOERES MARKUS (DE); TARGOR GMBH (DE); BIDELE WOLFGA) 17 September 1998 (1998-09-17) Claims 1-7; formula (I); p. 6, l. 36; p. 8, l. 37	1-9
	----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

26 April 2004

Date of mailing of the international search report

28.05.2004

Name and mailing address of the ISA  
European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+31-70) 340-3018

Authorized officer

Kirsch, C

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/13553

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.:
X	WO 99/40129 A (BOHNEN HANS ;TARGOR GMBH (DE); FRITZE CORNELIA (DE)) 12 August 1999 (1999-08-12) Claims 9-14; formula (I); p. 11, l. 21-22,27; p. 15, l. 2-16	1-9
X	EP 0 576 970 A (HOECHST AG) 5 January 1994 (1994-01-05) Claims 1-7; formula (I) and (G); process on p. 9-10; examples G and 22	1-9

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/13553

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1(part), 2, 3(part), 4, 5-9(part)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1(part), 2,3(part),4, 5-9(part)

Biscyclopentadienyl transition metal compounds substituted in 4-position by a cyclic moiety for use as catalysts in the polymerization of olefins

---

2. claims: 1,3,5-9 (all in part)

Fused biscyclopentadienyl transition metal compounds for use as catalysts in the polymerization of olefins

---

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/13553

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0743317	A	20-11-1996	DE 19517851 A1	21-11-1996
			AT 222916 T	15-09-2002
			BR 9602275 A	13-01-1998
			CA 2176687 A1	17-11-1996
			DE 59609586 D1	02-10-2002
			EP 0743317 A2	20-11-1996
			ES 2182927 T3	16-03-2003
			JP 8333379 A	17-12-1996
			US 5840947 A	24-11-1998
WO 0218397	A	07-03-2002	AU 8982401 A	13-03-2002
			WO 0218397 A1	07-03-2002
			EP 1313747 A1	28-05-2003
			JP 2004507553 T	11-03-2004
			US 2003199703 A1	23-10-2003
WO 9840419	A	17-09-1998	DE 19713546 A1	19-11-1998
			DE 19757262 A1	01-07-1999
			DE 19757563 A1	08-07-1999
			AT 249480 T	15-09-2003
			AU 6401098 A	29-09-1998
			AU 6727698 A	29-09-1998
			AU 7332398 A	29-09-1998
			BR 9808827 A	04-07-2000
			CA 2262396 A1	17-09-1998
			CA 2262493 A1	17-09-1998
			CN 1254328 T	24-05-2000
			DE 59809568 D1	16-10-2003
			WO 9840419 A1	17-09-1998
			WO 9840331 A1	17-09-1998
			WO 9840416 A1	17-09-1998
			EP 0968158 A1	05-01-2000
			EP 0942938 A1	22-09-1999
			EP 0931099 A1	28-07-1999
			JP 2001519779 T	23-10-2001
			NO 991112 A	07-05-1999
			NO 991113 A	07-05-1999
			TW 460495 B	21-10-2001
			US 2003009046 A1	09-01-2003
			US 6444606 B1	03-09-2002
			US 6492539 B1	10-12-2002
			ZA 9801912 A	06-09-1999
			ZA 9801913 A	06-09-1999
			ZA 9801915 A	06-09-1999
WO 9940129	A	12-08-1999	DE 19804970 A1	12-08-1999
			BR 9914227 A	26-06-2001
			CN 1301272 T	27-06-2001
			DE 59907193 D1	06-11-2003
			WO 9940129 A1	12-08-1999
			EP 1053263 A1	22-11-2000
			JP 2002502896 T	29-01-2002
			US 6482902 B1	19-11-2002
			ZA 9900919 A	07-08-2000
EP 0576970	A	05-01-1994	AT 162194 T	15-01-1998
			AT 209964 T	15-12-2001
			AU 4149193 A	06-01-1994

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/13553

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0576970	A	CA 2099214 A1	28-12-1993
		DE 59307969 D1	19-02-1998
		DE 59310245 D1	17-01-2002
		EP 0576970 A1	05-01-1994
		EP 0790076 A2	20-08-1997
		ES 2112355 T3	01-04-1998
		ES 2169288 T3	01-07-2002
		FI 932961 A	28-12-1993
		JP 6100579 A	12-04-1994
		RU 2118961 C1	20-09-1998
		US 6242544 B1	05-06-2001
		US 6051727 A	18-04-2000
		US 6255506 B1	03-07-2001
		US 5786432 A	28-07-1998
		US 5770753 A	23-06-1998
		US 5840644 A	24-11-1998
		US 2001021755 A1	13-09-2001
		ZA 9304577 A	01-02-1994